

## SOLVING SYSTEMS OF EQUATIONS BY GRAPHING – Day 2



A weightlifter is adding plates of equal weight to a bar. The table below shows the total weight, including the bar, that he will lift depending on the total number of plates on the bar.

Based on the information, which statement is true?

- F. The bar weighs 35 lbs without any plates
- G. The bar weighs 70 lbs without any plates
- H. The bar weighs 45 lbs without any plates
- J. The bar weighs 25 lbs without any plates

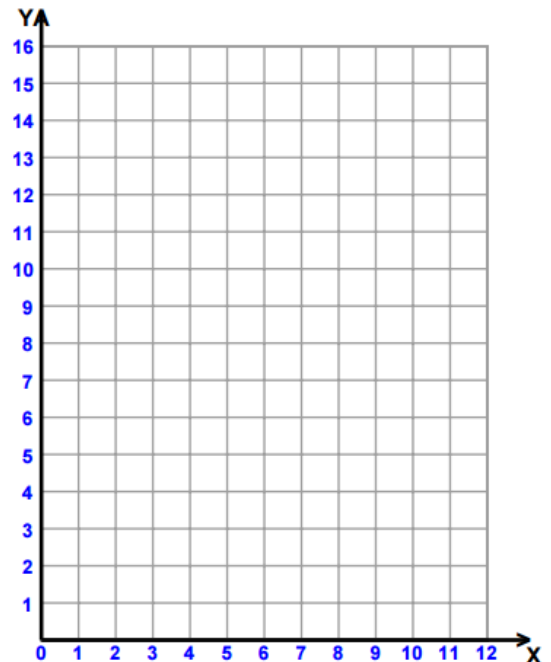
# plates	Weight
2	115
4	185
6	255
8	325

1) Scientist studied the weights of two alligators over a period of 12 months. Use the tables below to determine the initial weight and the rate of growth for Alligator 1 and Alligator 2. After how many months did the alligators weigh the same amount?



Alligator 1	
Month	Weight
0	4
1	5.5
2	7
3	8.5

Alligator 2	
Month	Weight
0	6
1	7
2	8
3	9



Alligator 1: \_\_\_\_\_

Alligator 2: \_\_\_\_\_

Solution: \_\_\_\_\_

**Systems of equations can also be solved by graphing in the calculator. Here's how:**

Step 1: Change equations to slope-intercept form ( $y = mx + b$ )

Step 2: Input equations into graphing calculator using **y=**

Put the first equation in  $y_1$

Put the second equation in  $y_2$

Step 3: Press **2<sup>nd</sup>** then **TRACE**

Step 4: Choose #5 **Intersect**

Step 5: Press **ENTER** **ENTER** **ENTER** to find the intersection (solution).

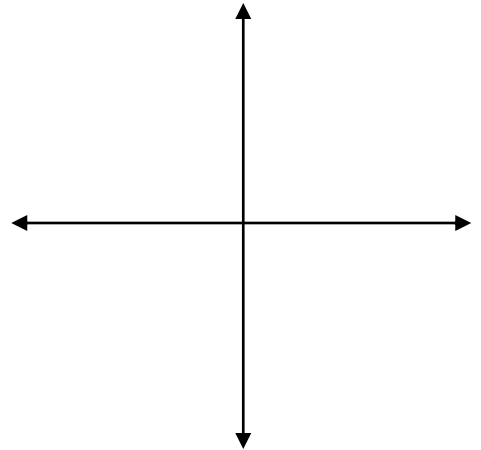
Solve each system of equations by graphing on the calculator. Sketch the graph

2)  $4x + y = 3$

and

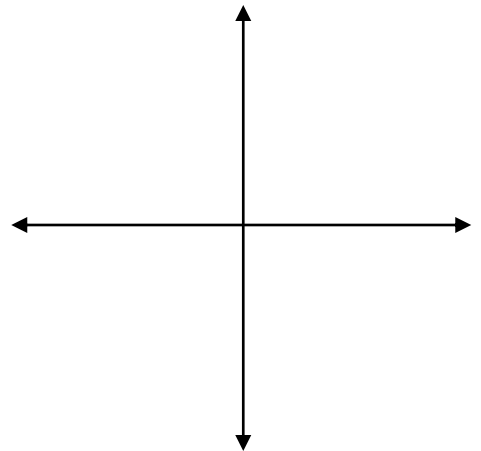
x	y
-4	-16
-1	-7
0	-4
2	2

Equation (from table): \_\_\_\_\_



3)  $x - 3y = 6$        $y_1 =$  \_\_\_\_\_

$2x - 6y = -6$        $y_2 =$  \_\_\_\_\_



4) Write the equation of each line then find the solution to the system.

AB: \_\_\_\_\_

DC: \_\_\_\_\_

Solution: \_\_\_\_\_

